AMENDMENTS TO THE CLAIMS

Please amend claims 1, 7, 9, 13 and 21, such that the status of the claims is as follows:

1. (Currently Amended) A transducing head configured to write data to a magnetic medium, the transducing head comprising:

a perpendicular writing main pole configured for producing a magnetic field that causes perpendicular writing of data to the magnetic medium; and

at least one magnetic element spaced from the perpendicular writing main pole, wherein the magnetic element provides a potential return path for [[a]]the magnetic field produced by the perpendicular writing main pole in the magnetic medium during perpendicular writing of data, and has a first edge closest to the perpendicular writing main pole, a second edge furthest from the perpendicular writing main pole, and wherein permeability of the magnetic element increases from the first edge to the second edge.

2. (Original) The transducing head of claim 1, wherein the magnetic element is formed of a plurality of layers, each succeeding layer having greater permeability.

3. (Original) The transducing head of claim 2, wherein a ratio of permeability between adjacent layers is approximately constant.

4. (Original) The transducing head of claim 1, wherein the magnetic element is a return pole.

5. (Original) The transducing head of claim 4, wherein the return pole has a shape selected from the group consisting of rectangular, round, and elliptical.

6. (Original) The transducing head of claim 1, wherein the magnetic element is a reader shield.

7. (Currently Amended) The transducing head of claim 1, wherein the perpendicular writing main pole is formed of magnetic material.

8. (Original) The transducing head of claim 1, wherein the magnetic element is formed of magnetic material.

9. (Currently Amended) A transducing head configured to write data to a magnetic medium, the transducing head comprising:

a perpendicular writing main pole configured for producing a magnetic field that causes perpendicular writing of data to the magnetic medium; and

at least one magnetic element spaced from the perpendicular writing main pole, wherein the magnetic element provides a potential return path for [[a]]the magnetic field produced by the perpendicular writing main pole in the magnetic medium during perpendicular writing of data and is formed of at least three layers, each succeeding layer having greater permeability, with a highest permeability at an edge of the magnetic element furthest from the perpendicular writing main pole.

10. (Original) The transducing head of claim 9, wherein a ratio of permeability between adjacent layers is approximately constant.

11. (Original) The transducing head of claim 9, wherein the magnetic element is a return pole.

12. (Original) The transducing head of claim 9, wherein the magnetic element is a reader shield.

13. (Currently Amended) The transducing head of claim 9, wherein the perpendicular writing main pole is formed of magnetic material.

14. (Original) The transducing head of claim 9, wherein the magnetic element is formed of magnetic material.

15. (Original) A perpendicular write head for perpendicular recording on a magnetic medium, the perpendicular write head comprising:

a write pole;

a magnetic gap; and

a return pole spaced from the write pole by the magnetic gap and having a greater thickness than the write pole, the return pole having a permeability which is less at an edge closest to the write pole and greater at an edge furthest from the write pole.

16. (Original) The perpendicular write head of claim 15, wherein the return pole is formed of a plurality of layers, each succeeding layer having greater permeability.

17. (Original) The perpendicular write head of claim 15, wherein a ratio of permeability between adjacent layers is approximately constant.

18. (Original) The perpendicular write head of claim 15, wherein the return pole has a shape selected from the group consisting of rectangular, round, and elliptical.

19-20. (Cancelled)

21. (Currently Amended) A perpendicular write head comprising:

a perpendicular writing main magnetic pole configured for producing a magnetic field that causes perpendicular writing of data to a magnetic medium;

a second magnetic element, separated from the perpendicular writing main magnetic pole; and

means for reducing a peak magnetic field at a trailing edge of the second magnetic element

to reduce side writing at the second magnetic element.

22. (Previously presented) The perpendicular write head of claim 21, wherein the means for reducing a peak magnetic field comprises regions of different permeability within the second magnetic element, with a region having a highest permeability at an edge furthest from the trailing edge.

23. (Previously presented) The perpendicular write head of claim 22, wherein a ratio of permeability between adjacent regions is approximately constant.